



4/2 way Solenoid Valve for pneumatics

- Compact design
- Push-over solenoid coil
- Exhaust air can be regulated
- Tube, threaded and sub-base connections
- Seat valve variant



Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with



Type 1087

Timer,
form A according to
DIN EN 175301-803



Type 2518

Cable plug,
form A according to
DIN EN 175301-803



Type 2000

Pneumatically operated
2/2-way angle seat valve
CLASSIC



Type 2511

Cable Plug Form A



Type 2513

Cable plug,
form A according to
DIN EN 175301-803

Type description

The Type 5420 is a pilot-controlled 4-way seat valve with servo-diaphragms. A minimum differential pressure of 2.5 bar is needed for switch-over. The valve can be mounted on two channel manifolds with a common pressure supply.

Table of contents

1. General technical data	3
2. Circuit functions	4
3. Approvals and conformities	4
3.1. General notes	4
3.2. Conformity	4
3.3. Standards	4
3.4. Explosion protection	4
3.5. North America (USA/Canada)	5
4. Materials	5
4.1. Bürkert resistApp	5
5. Dimensions	6
5.1. Standard variant	6
5.2. ATEX/IECEX variant	7
6. Performance specifications	8
6.1. Power consumption	8
7. Product accessories	8
7.1. Cable glands for ATEX/IECEX terminal box	8
7.2. Special tool to turn the terminal box	8
8. Ordering information	9
8.1. Bürkert eShop	9
8.2. Bürkert product filter	9
8.3. Ordering chart standard variant	9
8.4. Ordering chart ATEX/IECEX variant	10
8.5. Ordering chart accessories	10
Stackable manifolds made of aluminium	10
Accessories for manifolds	10
Cable plug Type 2518, form A according to DIN EN 175301 - 803	11
Cable plug Type 2513, form A according to DIN EN 175301 - 803	11
Cable glands for ATEX/IECEX terminal box	11

1. General technical data

Product properties

Dimensions Further information can be found in chapter **"5. Dimensions"** on page 6

Materials

Seal NBR
 Body Polyamide
 Coil Polyamide, epoxy
 Weight Approx. 0.4 kg
 Orifice DN 3
 Circuit function G

Further information can be found in chapter **"2. Circuit functions"** on page 4

Performance data

Duty cycle 100 % continuous operation
 Compressed air quality ISO 8573 - 1:2010, class 7.4.4 ¹⁾
 Flow rate (Q_{Nm} value air) 200 l/min ²⁾
 Switching time Opening: 30 ms (pressure build-up 0...90 %)
 Closing: 20 ms (pressure reduction 100...10 %)

Electrical data

Operating voltage

Standard variant 24 V DC, 24/230 V 50/60 Hz
 ATEX/IECEX variant 24/110/230 V UC
 Power consumption V DC variant: 2 W
 V AC variant: 11 VA (inrush), 6 VA (hold)
 Voltage tolerance + 10 %

Medium data

Operating medium Neutral medium (e.g. lubricated or oil-free compressed dry air)
 Medium pressure 2.5...10 bar ³⁾
 Medium temperature -10 °C...+ 60 °C

Product connections

Electrical connection Plug contacts according to DIN EN 175301 - 803 form A for cable plug **Type 2518** ▶
 Further information can be found in chapter **"Cable plug Type 2518, form A according to DIN EN 175301 - 803"** on page 11.
 Port connection G 1/8, tube SL 6/4, sub-base

Approvals and conformities

Protection class IP65 with cable plug
 Explosion protection Further information can be found in chapter **"3.4. Explosion protection"** on page 4
 North America (USA/Canada) Further information can be found in chapter **"3.5. North America (USA/Canada)"** on page 5

Environment and installation

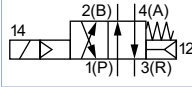
Installation As required, preferably with actuator upright
 Ambient temperature Max. + 55 °C

1.) To prevent freezing of the expanded compressed air, the pressure dew point must be at least 10 K lower than the temperature of the medium.

2.) Measurement at + 20 °C, 6 bar at the valve inlet and 1 bar differential pressure

3.) Pressure data: overpressure to atmospheric pressure

2. Circuit functions

Symbol	Description
	Circuit function G (CF G) 4/2-way solenoid valve Servo-controlled

3. Approvals and conformities

3.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available variants can be supplied with the below mentioned approvals or conformities.

3.2. Conformity

In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.

3.3. Standards

The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

3.4. Explosion protection

Approval	Description				
 	Optional: Explosion protection EU type examination certificate: PTB 20 ATEX 2003X / IECEx PTB 20 ATEX 2003X Suitable as category 2 device for zone 1/21 and zone 2/22 (optional). Ex marking of the components according to the following table: <table><tr><th>Coils with cable outlet</th><th>Coils with terminal box</th></tr><tr><td>ATEX: EPS 18 ATEX 1 232 X II 2G Ex mb IIC T* Gb II 2D Ex mb IIIC T*** °C Db IECEx: IECEx EPS 18.0110X Ex mb IIC T* Gb Ex mb IIIC T*** °C Db</td><td>ATEX: EPS 18 ATEX 1 232 X II 2G Ex eb mb IIC T* Gb II 2D Ex mb tb IIIC T*** °C Db IECEx: IECEx EPS 18.0110X Ex eb mb IIC T* Gb Ex mb tb IIIC T*** °C Db</td></tr></table>	Coils with cable outlet	Coils with terminal box	ATEX: EPS 18 ATEX 1 232 X II 2G Ex mb IIC T* Gb II 2D Ex mb IIIC T*** °C Db IECEx: IECEx EPS 18.0110X Ex mb IIC T* Gb Ex mb IIIC T*** °C Db	ATEX: EPS 18 ATEX 1 232 X II 2G Ex eb mb IIC T* Gb II 2D Ex mb tb IIIC T*** °C Db IECEx: IECEx EPS 18.0110X Ex eb mb IIC T* Gb Ex mb tb IIIC T*** °C Db
Coils with cable outlet	Coils with terminal box				
ATEX: EPS 18 ATEX 1 232 X II 2G Ex mb IIC T* Gb II 2D Ex mb IIIC T*** °C Db IECEx: IECEx EPS 18.0110X Ex mb IIC T* Gb Ex mb IIIC T*** °C Db	ATEX: EPS 18 ATEX 1 232 X II 2G Ex eb mb IIC T* Gb II 2D Ex mb tb IIIC T*** °C Db IECEx: IECEx EPS 18.0110X Ex eb mb IIC T* Gb Ex mb tb IIIC T*** °C Db				

3.5. North America (USA/Canada)

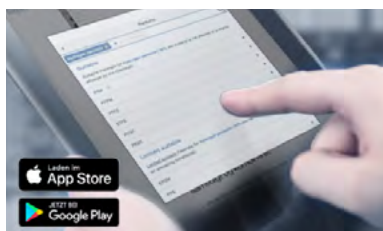
Note:

The following approvals are only available on request for coil systems with epoxy coils.

Approval	Description
	Optional: UL Recognized for the USA and Canada (valid for coils) The coils are UL Recognized for the USA and Canada according to: • UL 429 (electrically operated valves) • CAN/CSA-C22.2 No. 139
	Optional: UL Hazardous Locations – Explosion Protection (valid for coils) UL Listed for Hazardous Locations for USA and Canada Class I, Zone 1 Class I, Division 2, Group A, B, C and D Class II + III, Division 2, Group F and G
	Optional: FM (Factory Mutual) – Explosion Protection (valid for coils) FM for Hazardous Locations for USA and Canada Class I, Zone 1 Class I, Division 1, Groups A, B, C and D Class II + III, Division 1, Groups E, F and G

4. Materials

4.1. Bürkert resistApp



Bürkert resistApp – Chemical resistance chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

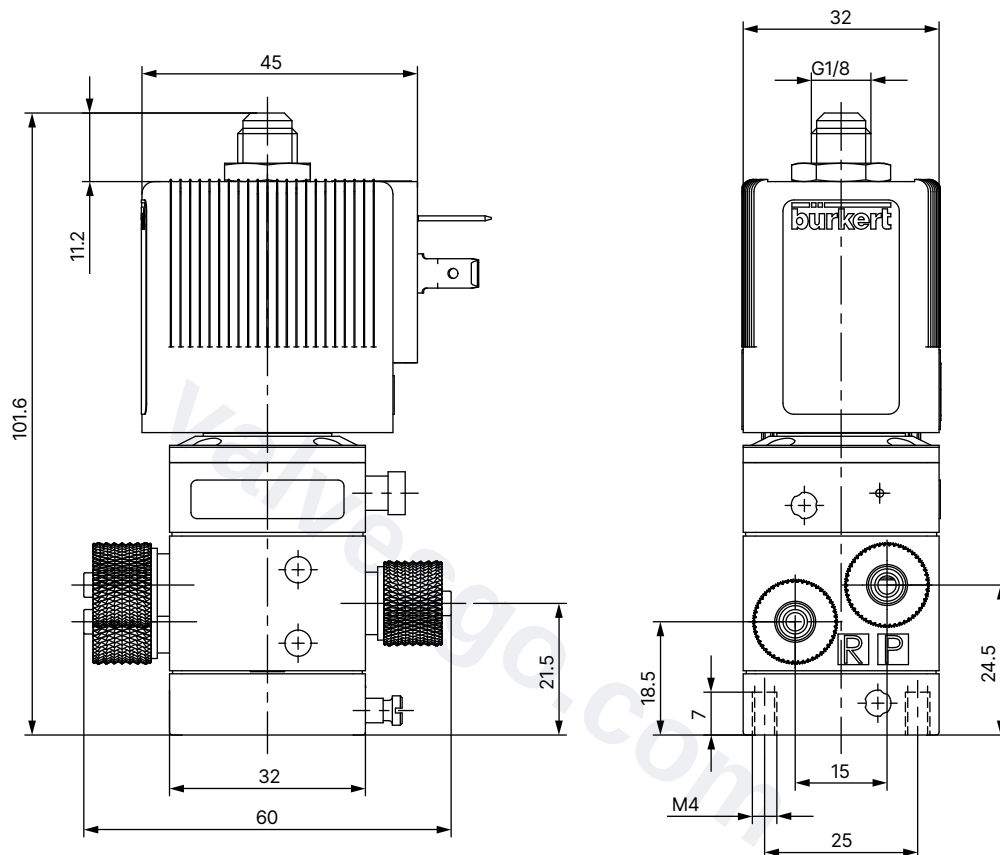
[Start chemical resistance check](#)

5. Dimensions

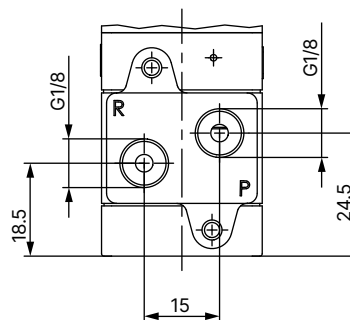
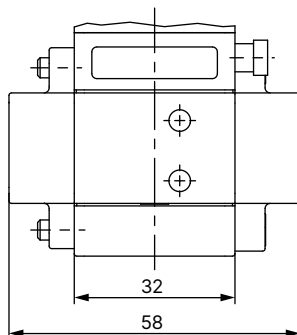
5.1. Standard variant

Note:

- Dimensions in mm
- Hose screw connection for semi-soft plastic hose (external Ø 6 mm, internal Ø 4 mm)
- For battery mounting, the union nuts on the ports 1 and 3 are replaced by O-rings (10 × 2).



Threaded connection G 1/8

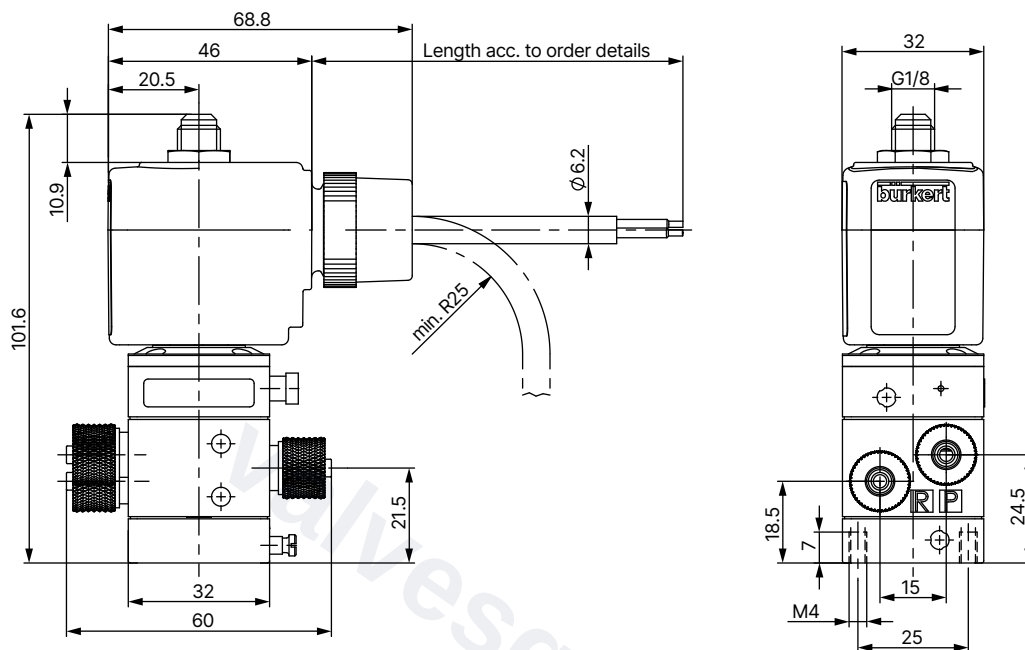


5.2. ATEX/IECEx variant

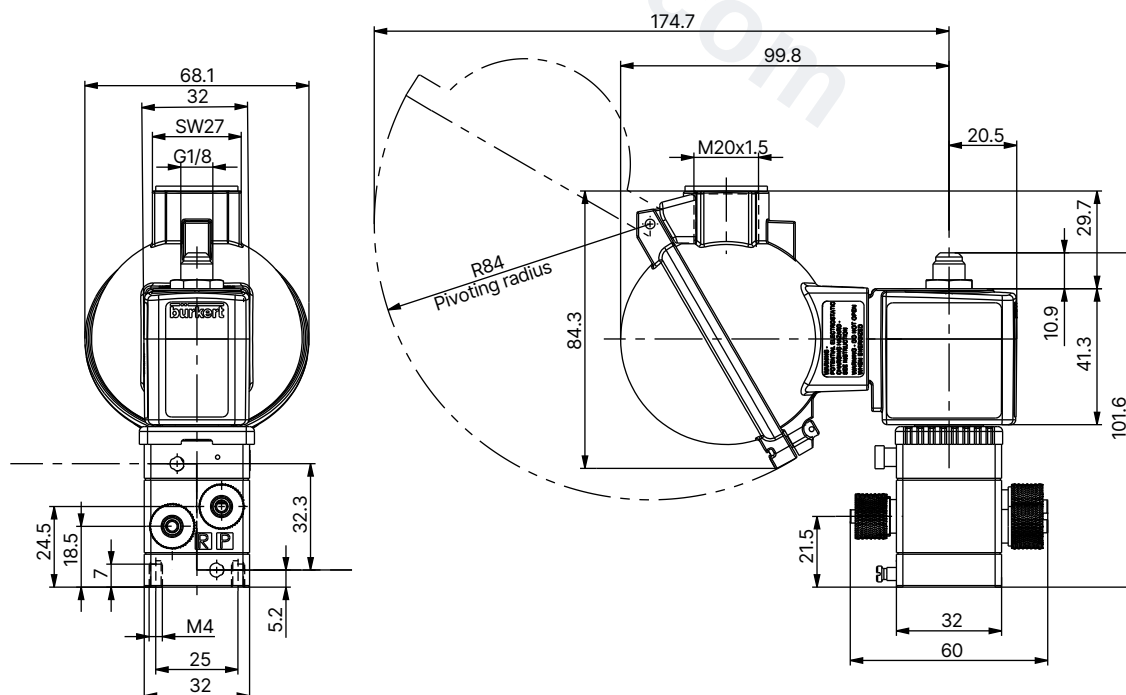
Note:

Dimensions in mm

Version with moulded cable (3 m)



Version with junction box



6. Performance specifications

6.1. Power consumption

Orifice [mm]	Q _{Nn} value [l/min]	Port connection		Coil power [W]	Pressure range [bar]	Response times ¹⁾		Weight [kg]
		1 and 3	2 and 4			Opening [ms]	Closing [ms]	
3	200	G 1/8	G 1/8	3	2.5...10	30	20	approx. 0.4
3	200	SL 6/4	SL 6/4	3	2.5...10	30	20	approx. 0.4
3	200	sub-base ¹⁾	G 1/8	3	2.5...10	30	20	approx. 0.4
3	200	sub-base ²⁾	SL 6/4	3	2.5...10	30	20	approx. 0.4

1.) A differential pressure of 2.5 bar is required for full opening.

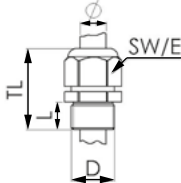
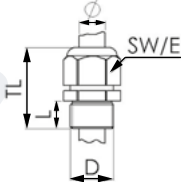
2.) Sub-base for mounting on manifolds

7. Product accessories

7.1. Cable glands for ATEX/IECEx terminal box

Note:

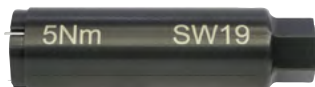
A polyamide cable gland is included in the scope of delivery. A nickel-plated brass variant can be ordered for a surcharge, see ["Cable glands for ATEX/IECEx terminal box" on page 11.](#)

Description	Ex approval		Dimensions										
	Certification	Identification											
Ex cable gland, nickel-plated brass, 6...13 mm 	PTB 04 ATEX 1112 X, IECEX PTB 13.0027X	II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68	 <table><tr><td>TL</td><td>29...37 mm</td></tr><tr><td>L</td><td>6 mm</td></tr><tr><td>D</td><td>20 mm</td></tr><tr><td>SW</td><td>24 mm</td></tr><tr><td>E</td><td>27 mm</td></tr></table>	TL	29...37 mm	L	6 mm	D	20 mm	SW	24 mm	E	27 mm
TL	29...37 mm												
L	6 mm												
D	20 mm												
SW	24 mm												
E	27 mm												
Ex cable gland, polyamide, 7...13 mm 	PTB 13 ATEX 1015 X, IECEX PTB 13.0034X	II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68	 <table><tr><td>TL</td><td>36...45 mm</td></tr><tr><td>L</td><td>10 mm</td></tr><tr><td>D</td><td>20 mm</td></tr><tr><td>SW</td><td>24 mm</td></tr><tr><td>E</td><td>28 mm</td></tr></table>	TL	36...45 mm	L	10 mm	D	20 mm	SW	24 mm	E	28 mm
TL	36...45 mm												
L	10 mm												
D	20 mm												
SW	24 mm												
E	28 mm												

7.2. Special tool to turn the terminal box

Note:

This special tool is not included in the scope of delivery of the valve, see ["Cable glands for ATEX/IECEx terminal box" on page 11.](#)

Description	Components of the set
Set SC02-AC10 	- Special tool - Service manual

8. Ordering information

8.1. Bürkert eShop



Bürkert eShop – Easy ordering and quick delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

[Order online now](#)

8.2. Bürkert product filter



Bürkert product filter – Get quickly to the right product

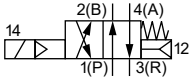
You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)

8.3. Ordering chart standard variant

Note:

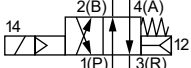
- Please note that the cable plug must be ordered separately, see [“Cable plug Type 2518, form A according to DIN EN 175301-803” on page 11](#) or separate data sheet for **Type 2518** ►.
- Corrosion-resistant body in polyamide, with coil AC10 (32 mm), 2 W, seal material NBR
- A differential pressure of 2.5 bar is required for toggling.
- The pressure range in the following table is 2.5...10 bar.

Circuit function	Port connection 1 and 3	Port connection 2 and 4	Orifice [mm]	Q _{Nn} value air [l/min]	Article no. per voltage/frequency		
					24 DC	24 / 50/60	230 / 50/60
					[V/Hz]	[V/Hz]	[V/Hz]
CF G 4/2-way solenoid valve Servo-controlled 	G 1/8	G 1/8	3.0	200	134622 	134623 	134625 
	Hose fitting 6/4	Hose fitting 6/4	3.0	200	134630 	134631 	134633 
	Flange for manifold	G 1/8	3.0	200	134634 	134635 	134637 
	Flange for manifold	Flange for manifold 6/4	3.0	200	134638 	134639 	134641 

8.4. Ordering chart ATEX/IECEx variant

Note:

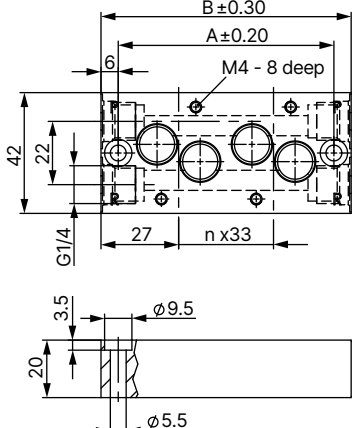
- Please note that the cable plug must be ordered separately, see [“Cable plug Type 2518, form A according to DIN EN 175301-803” on page 11](#) or separate data sheet for **Type 2518** ▶.
- Variant according to Ex m II T5, polyamide body with manual override, with moulded cable (3 m)
- The maximum medium temperature must never exceed the permitted temperature class (T4: +135 °C, T5: +100 °C, T6: +85 °C) minus 5 K.
- Terminal box is available on request.
- The pressure range in the following table is 2.5...10 bar.

Circuit function	Port connection 1 and 3	Port connection 2 and 4	Orifice [mm]	Q _{Nn} value air [l/min]	Electrical connection application	Article no. per voltage/frequency		
						024 UC [V/Hz]	110 UC [V/Hz]	230 UC/60 [V/Hz]
CF G 4/2-way solenoid valve Servo-controlled 	G 1/8	G 1/8	3.0	200	Single unit	350417 ☒	o. r.	o. r.
	Hose fitting 6/4	Hose fitting 6/4	3.0	200	Single unit	350410 ☒	o. r.	350411 ☒
	Flange for manifold	G 1/8	3.0	200	Block assembly	350414 ☒	350415 ☒	350416 ☒
	Flange for manifold	Flange for manifold 6/4	3.0	200	Block assembly	350412 ☒	o. r.	350413 ☒

o. r. = on request

8.5. Ordering chart accessories

Stackable manifolds made of aluminium

Manifold	Dimensions	A	B	Article no.
		[mm]	[mm]	
2-fold		75	87	005356 ☒
3-fold		108	120	005357 ☒
4-fold		141	153	005372 ☒
5-fold		174	186	005373 ☒
6-fold		207	219	005374 ☒
8-fold		273	285	006553 ☒

Accessories for manifolds

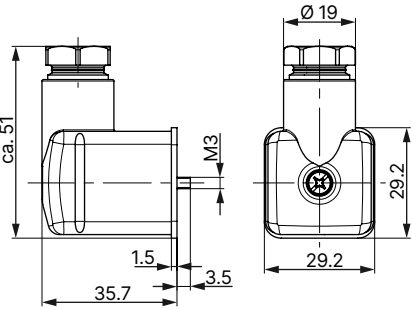
Description	Article no.
Silencer	005424 ☒
Lock screw for unoccupied ports 1 or 4	005390 ☒
Cover plate, complete, for unoccupied valve slot on manifolds	005432 ☒
Nipple with O-rings for connecting manifolds	005049 ☒

Type 5420

Cable plug Type 2518, form A according to DIN EN 175301 - 803

Note:

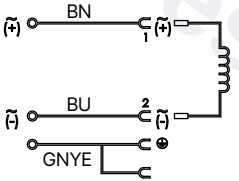
- Dimensions in mm
- For further variants see data sheet **Type 2518** ▶

Cable plug	Dimensions	Variant	Voltage	Article no.
		Without wiring (AC/DC)	0...250 V AC/DC	314802 𐀀
		With LED (AC/DC)	12...24 V AC/DC	314812 𐀀
		With LED and varistor (AC/DC)	12...24 V AC/DC	314820 𐀀
		With rectifier, LED and varistor	12...24 V AC/DC	314816 𐀀

Cable plug Type 2513, form A according to DIN EN 175301 - 803

Note:

- The cable plug Type 2513 meets the requirements of ATEX Cat. 3 GD in assembly with a Bürkert solenoid valve.
- Refer to data sheet **Type 2513** ▶ for more information about the cable plug.

Cable plug	Circuit diagram	Cable length [mm]	Article no.
		12000	260893 𐀀
		5000	260892 𐀀
		3000	260891 𐀀
		300	260890 𐀀

Cable glands for ATEX/IECEx terminal box

Note:

- A polyamide cable gland is included in the scope of delivery. A nickel-plated brass variant can be ordered for a surcharge.
- Refer to **"7.1. Cable glands for ATEX/IECEx terminal box"** on page 8 for more information about Ex cable glands.
- Refer to **"7.2. Special tool to turn the terminal box"** on page 8 for more information about special tool.

Description	Article no.
Ex cable gland, nickel-plated brass, 6...13 mm ^{1.)}	773278 𐀀
Ex cable gland, polyamide, 7...13 mm ^{1.)}	773277 𐀀
Set SC02-AC10: special tool ^{2.)} incl. service manual	293488 𐀀

1.) Cable diameter

2.) Not included in the scope of delivery of the valve